

10/521584

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:  
Dr. Andreas Reindl

Serial No.: To be assigned

Filing Date: Concurrently herewith

For: NADH-DEPENDENT CYTOCHROME B5  
REDUCTASE AS TARGET FOR HERBICIDES

Examiner: Not Yet Assigned  
Group Art Unit: Not Yet Assigned

**INFORMATION DISCLOSURE  
STATEMENT UNDER 37 C.F.R. § 1.97 & 1.98**

MS Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Dear Sir:

Pursuant to 37 C.F.R. §1.97 and § 1.98, Applicant submits for consideration in the above-identified application the documents listed on the attached Form PTO/SB/08a/b. Copies of foreign documents and non-patent literature are submitted herewith. The Examiner is requested to make these documents of record.

This Information Disclosure Statement is submitted with the application; accordingly, no fee or separate requirements are required.

Applicant would appreciate the Examiner initialing and returning the Form PTO/SB/08a/b, indicating that the information has been considered and made of record herein.

Application No: Not yet assigned

DT09 Rec'd PCT/PTO 1.8 JAN 2005  
Atty. Docket No. 532622010100

10/521584

The information contained in this Information Disclosure Statement under 37 C.F.R. § 1.97 and § 1.98 is not to be construed as a representation that: (i) a complete search has been made; (ii) additional information material to the examination of this application does not exist; (iii) the information, protocols, results and the like reported by third parties are accurate or enabling; or (iv) the above information constitutes prior art to the subject invention.

In the unlikely event that the transmittal form is separated from this document and the Patent Office determines that an extension and/or other relief (such as payment of a fee under 37 C.F.R. § 1.17 (p)) is required, Applicants petition for any required relief including extensions of time and authorize the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 03-1952 referencing 532622010100.

Dated: January 18, 2005

Respectfully submitted,

By: 

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Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>				Complete if known <b>10/521584</b>	
				Application Number	To be assigned
				Filing Date	Concurrently herewith
				First Named Inventor	Dr. Andreas Reindl
				Art Unit	Not yet assigned
				Examiner Name	Not yet assigned
Sheet	1	of	2	Attorney Docket Number	532622010100

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	1.	5,187,071	2/16/1993	Fischer et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)	MM-DD-YYYY			
	2.	WO-98/33925-A1	8/6/1998	Yale University		√
	3.	WO-00/77185-A2	12/21/2000	Novartis AG		√
	4.	WO-01/38484-A2	5/31/2001	BASF Plant Science GMBH		√

\*EXAMINER: Initial if information considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	5.	The Arabidopsis Genome Initiative. "Analysis of the Genome Sequence of the Flowering Plant Arabidopsis Thaliana," Nature, Vol. 408, December 14, 2000, pp. 796-815	
	6.	Nicolas Bouché et al. "Arabidopsis Gene Knockout: Phenotypes Wanted," Current Opinion in Plant Biology, 2001, pp. 111-117	
	7.	Masako Fukuchi-Mizutani et al. "Microsomal Electron Transfer in Higher Plants: Cloning and Heterologous Expression of NADH-Cytochrome b <sub>5</sub> Reductase from Arabidopsis," Plant Physiology, January 1999, Vol 199, pp. 353-361	
	8.	Toshitsugu Yubisui et al. "Characterization of the Purified NADH-Cytochrome b <sub>5</sub> Reductase of Human Erythrocytes as a FAD-containing Enzyme," The Journal of Biological Chemistry, Vol. 255, No. 6, March 25, 1980, pp. 2454-2456	
	9.	Donna A. Palmieri et al. "Effects of Domain-Specific Erythrocyte Membrane Modulators on Acetylcholinesterase and NADH: Cytochrome b <sub>5</sub> Reductase Activities," Archives of Biochemistry and Biophysics, Vol. 280, No. 1, July 1990, pp. 224-228	
	10.	Sighart W. Golf et al. "Properties and Biochemical Characterization of NADH 5α-Reductase from Rat Liver Microsomes," Biol. Chem. Hoppe-Seyler, Vol. 366, July 1985, pp. 647-653	
	11.	Minoru Tamura et al. "Microsomal NADH-Cytochrome b <sub>5</sub> Reductase of Bovine Brain: Purification and Properties," J. Biochem., Vol. 94, No. 5, 1983, pp. 1547-1555	
	12.	P. A. Covitz et al. "Expressed Sequence Tags from a Root-Hair-Enriched Medicago Truncatula cDNA Library," located at <a href="http://www.ebi.ac.uk/cgi-bin/dbfetch">www.ebi.ac.uk/cgi-bin/dbfetch</a> visited on November 12, 2004, 2 pages	
	13.	Peter A. Covitz et al. "Expressed Sequence Tags from a Root-Hair-Enriched Medicago Truncatula cDNA Library," Plant Physiol., Vol. 117, 1998, pp. 1325-1332	
	14.	H. J. Bohnert et al. "Functional Genomics of Plant Stress Tolerance," located at <a href="http://www.ebi.ac.uk/cgi-bin/dbfetch">www.ebi.ac.uk/cgi-bin/dbfetch</a> visited on November 12, 2004, 2 pages	
	15.	I. E. Holt et al. "Generation of ESTs from Potato Swelling Stolons," located at <a href="http://www.ebi.ac.uk/cgi-bin/dbfetch">www.ebi.ac.uk/cgi-bin/dbfetch</a> visited on November 12, 2004, 2 pages	
	16.	B. G. de los Reyes et al. "Differential Gene Expression in Sugar Beet Seedlings Germinated under Stress Conditions," located at <a href="http://www.ebi.ac.uk/cgi-bin/dbfetch">www.ebi.ac.uk/cgi-bin/dbfetch</a> visited on November 12,	

Examiner Signature	Date Considered
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ALTERNATIVE TO PTO/SB/08a/b (06-03)

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)				Completed if known	
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				First Named Inventor	Dr. Andreas Reindl
				Art Unit	Not yet assigned
Examiner Name	Not yet assigned				
Attorney Docket Number	532622010100				
Sheet	2	of	2		

		2004, 2 pages	
	17.	B. Xoconostle-Cazares et al. "CmPP36, a Protein Involved in Fe Metabolism Requires Proteolytic Processing for Entry into the Phloem Translocation Pathway," located at <a href="http://www.ebi.ac.uk/cgi-bin/dbfetch">www.ebi.ac.uk/cgi-bin/dbfetch</a> visited on November 12, 2004, 2 pages	
	18.	Paolo Bagnaresi et al. "Tonoplast Subcellular Localization of Maize Cytochrome b <sub>5</sub> Reductases," The Plant Journal, Vol. 24, No. 5, 2000, pp. 645-654	
	19.	Paolo Bagnaresi et al. "Cloning and Characterization of a Maize Cytochrome b <sub>5</sub> Reductase with Fe <sup>3+</sup> -chelate Reduction Capability," Biochem. Society, Vol. 338, 1999, pp. 499-505	
	20.	Eiji Sakuradani et al. "Identification of an NADH-Cytochrome b <sub>5</sub> Reductase Gene from an Arachidonic Acid-Producing Fungus, <i>Mortierella alpina</i> 1S-4, by Sequencing of the Encoding cDNA and Heterologous Expression in a Fungus, <i>Aspergillus oryzae</i> ," Applied and Environmental Microbiology, Vol. 65, No. 9, Sept. 1999, pp. 3873-3879	
	21.	Kearns et al. Spektrum Akademischer Verlag Heidelberg, Berlin, Oxford., 1991, pp. 750-751	

\*EXAMINER: Initial if information considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.

Examiner Signature		Date Considered	
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